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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,107	10/05/2001	Stephen F. Sichi	009447	4364

22462 7590 08/10/2005

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EXAMINER

TIEU, BINH KIEN

ART UNIT PAPER NUMBER

2643

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,107

Applicant(s)

SICHI ET AL

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-15, 17-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-15 and 17-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Collar et al. (U.S. Pat. #: 6,020,796 *as cited in the previous Office Action*).

Regarding claim 1, Collar et al. ("Collar") teaches an transponder system (i.e., communication satellite shown in figure 3), comprising:

an amplifier network having a plurality of amplifiers (i.e., a plurality of amplifiers 9 and 10);

an antenna network, comprising a plurality of antennae (i.e., a plurality of receiving antennae connected on left side of figure 3 as input to amplifiers 9 and 10, col.1, lines 10-13 and col.2, line 55 – col.3, line 12);

a single rail output switching network (i.e., *links L.sub.12, L.sub.13, L.sub.15 through L.sub.18 on the output side are eliminated. Therefore, only link L.sub.11 (single ring) is a single rail on the output side in figure 3, col.5, lines 17-21*), including first output switching

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network switch (i.e., switch shown in figure 4a-4e), selectably coupling one of the amplifiers to one of the plurality of antennae at a first output switching network switch first switch state (i.e., in first switch position or straight through shown in figure 4B) and to a second output switching network switch in a first output switch network switch second switch state (i.e., in second switch position, the switch connects to other ports as shown in figure 4c and 4e);

wherein the second output switching network switch is selectably coupled to a second one of the plurality of antennae in a second output switching network switch first switch state and to a third one of the plurality of antennae in a second output switching network switch second switch state (col.3, lines 20-26 and col.6, lines 6-19).

Regarding claim 2, note col.3, lines 20-26 and lines 46-59; and col.6, lines 6-19.

Regarding claim 3, note col.3, lines 46-59.

Regarding claims 5-9, note col.3, line 60 – col.4, line 10.

Regarding claim 10, note col.1, lines 10-12. It should be understood that there are a plurality of receiving antennae connected to input ports (ports on the left side of figure 3) and a plurality of transmitting antennae connected to outputs (ports on right side of figure 3).

Regarding claim 11, Collar teaches a network, as shown in figure 3, comprising:

an first device network having a plurality of first devices (i.e., input ports on the left side of figure 3);

an section device network having a plurality of second devices (i.e., output ports on the right side of figure 3);

a single rail output switching network (*i.e., links L.sub.12, L.sub.13, L.sub.15 through L.sub.18 on the output side are eliminated. Therefore, only link L.sub.11 (single ring) is a*

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single rail on the output side in figure 3, col.5, lines 17-21), communicatively coupling any of the second devices with any of the first devices (i.e., row of switches 8, each switch, as shown in figures 4a-4e, having first port can be connected to one of the plurality of amplifiers 10 and other ports can be connected to an antenna at an output port and neighboring switches of the row 8 (col.3, lines 26), wherein the first device network is an antenna network and the first devices are antennae (i.e., antenna network with antennae being located on the left side of the output row 8 with arrows), and the second device network is an amplifier network and the second devices are amplifiers (i.e., amplifiers 10 on the right side of row 8).

Regarding claim 12, note col.4, lines 48-67.

Regarding claims 13-15, note col.3, line 60 – col.4, line 10.

Regarding claim 17, note col.1, lines 10-12. It should be understood that there are a plurality of receiving antennae connected to input ports (ports on the left side of figure 3) and a plurality of transmitting antennae connected to outputs (ports on right side of figure 3).

Regarding claim 18, Collar teaches a method of providing a signal to any one of a plurality of output devices, comprising the steps of:

receiving the signal in a first switch;

selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection (see figure 4b, col.3, lines 20-22); and

selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to as second switch selection (see Fig. 4c and 4e, col.3, lines 22-33).

Regarding claim 19, note col.3, lines 26-30.

Regarding claim 20, Collar teaches an apparatus for providing a signal to any one of a plurality of output devices, comprising:

a first switch for receiving the signal and for selectably coupling the signal to a first output device or a second switch via the first switch according to a first switch selection (see figures 4a, 4e or 4e);

a second switch for selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (see figure 4b, 4c or 4e, col.3, lines 20-22; col.6, lines 6-19).

Regarding claim 21, note col.3, lines 26-30.

Regarding claim 22, Collar teaches an apparatus for providing a signal to any one of a plurality of output devices, comprising:

means for receiving the signal;

means for selectably coupling the signal to a first output device or a second selectably coupling means (see figure 4b, col.3, lines 20-22), wherein the second selectably coupling means selectably coupling the signal from the first selectably coupling means to a second output device or a third output device if the signal is not coupled to the first output device (see Fig. 4c and 4e, col.3, lines 22-33).

Regarding claim 23, note col.3, lines 26-30.

Regarding claims 24-26, Collar teaches the switching means in figure 3 can be rearranged with elimination of its rings or links as discussed above. After the switching means was rearranged, only row 8 of switches is existing as output ring or single rail. Thus, only one

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switch, e.g., switch.8.sub.1, is directly connected between one of amplifiers 10 and an antenna at one of the output ports (arrow).

3. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vannatta et al. (U.S. Pat. #: 5,649,306 *also cited in the previous Office Action*).

Regarding claim 18, Vannatta et al. ("Vannatta") teaches a network, as shown in figure 5, comprising:

Receiving the signal in a first switch (i.e., receiving a signal from one of input antennae 106, 112 and 113 as shown in figure 5);

selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection (i.e., selecting connecting the received signal to either output speaker phone 178, or sensor 199 for incoming voice signal);

selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (i.e., selectively coupling the received signal to one of output devices of speaker phone 178, sensor and microphone via switches 121 and 130).

Regarding claim 20, the limitations of the claim are rejected with the same reasons set forth in claim 18 above.

4. Claims 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaisannen et al. (U.S. Pat. #: 6,560,443 *also cited in the previous Office Action*).

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Regarding claim 18, Vaisselle et al. ("Vaisannen") teaches a network, as shown in figure 1, comprising:

receiving the signal in a first switch (i.e., receiving a signal from one of input antennae "ANT1" and "ANT2" via one of switches "SW1" and "SW2");

selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection (i.e., selecting connecting the received signal to either output devices of "BT" 12 and "WLAN" 11);

selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (i.e., selectively coupling the received signal to one of output devices of "BT" 12 and "WLAN" 11 via one or both of switches "SW1" and "SW2").

Regarding claim 20, the limitations of the claim are rejected with the same reasons set forth in claim 18 above.

Response to Arguments

5. Applicant's arguments filed 06/14/2005 have been fully considered but they are not persuasive.

In response to the Applicants' arguments stated on page 10 wherein the applicants stated as followings:

"...the Applicants have amended claim 1 to recite that the output-switching network is a single rail network to further clarify this point. The Collar reference discloses a rather typical dual rail system and teaches away from the Applicants' invention..."

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The Examiner respectfully disagreed with the Applicants' arguments as stated above.

Collar, according to the teachings in col.5, lines 17-21, teaches other embodiment that rearranges the dual rings into signal ring or single rail with deletions of existing links or rings, *e.g., links L.sub.12, L.sub.13, L.sub.15 through L.sub.18 on the output side are eliminated. Therefore, only link L.sub.11 (single ring) is a single rail on the output side in figure 3.*

In response to the Applicants' arguments stated on page 11 wherein the applicants stated as followings:

“... Claim 18 recites the step of selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection. The Collar reference discloses a system in which the signal (presumably from one of the amplifiers) is selectably coupled to a second switch (in the adjacent rail) or a third switch (in the same rail) according to the first switch selection. Further the Collar reference discloses selectably coupling the signal from the first switch to yet another switch (not an output device). Accordingly, the Applicant respectfully traverses.”

The Examiner respectfully disagreed with the Applicants' arguments as stated above. first of all, Examiner noted that there were no limitations of “...the signal ... is selected coupled to a second switch *(in the adjacent rail) or a third switch (in the same rail) according to the first switch selection...*” recited in the claim 20 and 22. Therefore, the Applicants argued on features, which were not clearly stated in claims 20 and 22. Furthermore, Collar, according to teachings in col.3, lines 20-26 and col.5, lines 17-21, any switch in the only output side row 8 of switches shown in figure 3, *e.g., switch 8.sub.1* can selectively connect a signal from an amplifier 10 directly to output port in one state (normal operation of a channel slot) or connected the signal to a neighboring switch, *e.g., switch 8.sub.2* which is, in turn, connected to the other

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output port (backup channel slot, col.4, lines 50-62). The same above response is also applied to the arguments of claim 22.

In response to the Applicants' arguments stated in the first paragraph, page 12 wherein the applicants stated as followings:

"... Claim 18 recites a system providing a signal to a plurality of output device. The Vannatta reference disclose a transceiver that share antenna ... however, antenna 106 is not an output device ... it is a receive antenna, and therefore, relative to the switch 130, an output device. The analysis with respect to claim 20 is analogous."

The Examiner respectfully disagreed with the Applicants' arguments as stated above. Vannatta clearly teaches in figures 5 and 6 that the antennae 106, 112 and 113 read on "input devices" and speaker 178, sensor 199 and 182 are three output devices, which read on "output devices". The switches 130 and 121 read on "first switch" and "second switches", respectively.

In response to the Applicants' arguments stated in the second paragraph, page 12 wherein the applicants stated as followings:

"... The Vaisannen reference is similar the Vannatta reference in that it does not disclose switching among three output device, but rather, a system for switching between an input device and an output device for transmit and receive operations. Accordingly, the rejections of claims 11, 18 and 20 are traversed for the same reasons."

The Examiner respectfully disagreed with the Applicants' arguments as stated above. Vaisannen clearly teaches in figure 1 that antennae "ANT1" and "ANT2" are read on "input devices", "BT" 12 and "WLAN" 11 are read on "output devices" and switch "SW1" and "SW2" are read on the "first switch" and "second switch", respectively.

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With all remarks in response to the Applicants' arguments above, the Examiner believes that the rejections to all pending claims as set forth in the previous Office Action as well as in this Office Action have been proper and permissible on the merits. Therefore, the rejections to the claims have been maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any response to this final action should be mailed to:

Box AF

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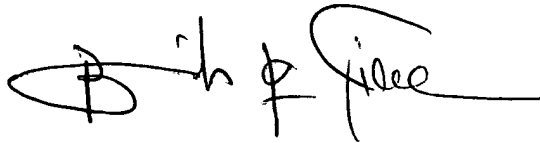
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

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A handwritten signature in black ink, appearing to read 'Binh K. Tieu', with a stylized flourish at the end.

**BINH TIEU
PRIMARY EXAMINER**

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Date: August 04, 2005